



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,216	03/19/2001	Raphaelle Mauger	Q63628	6927

7590 08/19/2005
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
Suite 800
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

PHU, SANH D

ART UNIT	PAPER NUMBER
----------	--------------

2682

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/810,216		MAUGER, RAPHAELLE	
	Examiner		Art Unit	
	Sanh D. Phu		2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/29/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the applicant's response filed on 6/29/05.

Claim Rejections – 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 11, 21 and 22 are rejected under 35 U.S.C. 102(a) as being anticipated by Yasuda, "Network Functions for the Application of Multi-rate Speech Coding in Digital Cellular Systems", previously cited.

–Regarding to claims 1, 11, 21 and 22, see figure 6 and pages 308 and 309, Yasuda discloses a method and associated system (figure 6B) using a tandem free mode for a mobile-to-mobile call from (MS1) to (MS2) (see figures 5) wherein the method/system comprises:

Art Unit: 2682

step/means (SETUP, Channel Set (Half rate), IAM, Paging) (see figure 6B) of selecting a first coding mode (Half-rate coding mode) wherein the selection is conveyed in signals (SETUP, IAM, Paging) is sent from (MS1) and conveyed to (MS2) ; and

step/means (Channel SET (Full rate, Hand over Request (Full rate), Channel Set (Full rate)) (see figure 6b) of changing said first coding mode to a second coding mode (Full rate coding mode) which is compatible with a tandem free operation mode (i.e., changing to the second coding mode which is available and can be used as a common coding mode in both the MS1 and MS2 for the tandem free coding mode) if said first coding mode is not compatible with said tandem free operation mode, and therefore making the MS1 and MS2 incompatible for the tandem free coding mode (i.e., in this case, if said first coding mode is not available at the MS2 in order to be selected as the common coding mode), wherein note that the tandem free operation mode is occurred when CODEC'S (see figure 5) can be by-passed in the mobile-to-mobile call, and for the tandem free operation mode, said first coding mode is said to be compatible with said tandem free operation mode only if the (MS2, MS2) also

Art Unit: 2682

has said first code mode available and can use said first coding mode in the mobile-to-mobile call) (see page 308)).

Further regarding to claims 1, 11 and 21, Yasuda discloses step/means (Full rate CODEC bypassed connection) of using said tandem free operation mode with said second coding mode.

Further regarding to claim 22, Yasuda discloses means for initiating a negotiation for selecting a common coding mode for said tandem free operation, with said second coding mode (see third paragraph "Scheme 1 is not enough ... by scheme 2) of page 309).

Claim Rejections – 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-10, 12-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda.

Art Unit: 2682

–Regarding to claims 2, 12, see figure 6 and pages 308 and 309, Yasuda discloses a method and associated system (figure 6B) using a tandem free mode for a mobile-to-mobile call from (MS1) to (MS2) (see figures 5) wherein the method/system comprises:

step/means (SETUP, Channel Set (Half rate), IAM, Paging) (see figure 6B) of selecting a first coding mode (Half-rate coding mode) wherein the selection is conveyed in signals (SETUP, IAM, Paging) is sent from (MS1) and conveyed to (MS2) ;

step/means (Channel SET (Full rate, Hand over Request (Full rate), Channel Set (Full rate)) (see figure 6b) of changing said first coding mode to a second coding mode (Full rate coding mode) which is compatible with a tandem free operation mode (i.e., changing to the second coding mode which is available and can be used as a common coding mode in both the MS1 and MS2 for the tandem free coding mode) if said first coding mode is not compatible with said tandem free operation mode, and therefore making the MS1 and MS2 incompatible for the tandem free coding mode (i.e., in this case, if said first coding mode is not available at the MS2 in order to be selected as the common

Art Unit: 2682

coding mode), wherein note that the tandem free operation mode is occurred when CODEC'S (see figure 5) can be by-passed in the mobile-to-mobile call, and for the tandem free operation mode, said first coding mode is said to be compatible with said tandem free operation mode only if the (MS2, MS2) also has said first code mode available and can use said first coding mode in the mobile-to-mobile call) (see page 308)); and

step/means (Full rate CODEC bypassed connection) (see figure 6b) using said tandem free operation mode with said second coding mode.

Yasuda does not disclose steps/means of when said first coding mode is changed to said second coding mode, signaling said second coding mode, for each of said mobiles; and selecting a common coding mode for tandem free operation based on said signaled coding modes for each of said mobiles.

However, Yasuda teaches that a MSC is capable of negotiating (see figure 4) and sending a signaling signal to its respective MS prior to a connection setup of a speech communication for the MS to another MS at the other end in order to inform the respective MS what kind of coding mode that the respective MS would use for the speech communication (see the signaling (Radio channel

Set (Full or Half rate radio channel) of figure 4), and the respect MS, then, would select a coding mode based on the signaling sent from the MSC (see figure 4 and page 307).

Since in Yasuda, both of the MS1 (during the signaling of "Channel Set (full rate)" in communication with the MSC1) and MS2 (during the signaling of "Channel Set (full rate)" in communication with the MSC2) (see figure 6b) should need to be informed from their respective MSC the full-rate coding mode, as a common coding mode, that the MS1 and MS2 would be select for the (Full rate CODEC bypassed connection), it would have been obvious for a person skilled in the art, within his skills, and upon his design preference or system requirement, to implement Yasuda method (figure 6B) in such a way that during the signaling of "Channel Set (full rate)" in communication between MS1 and MSC1, the MSC1 would send a signaling signal to the MS1 to inform the MS1 that the full-rate coding mode would be the common coding mode for the tandem free mode when said first code mode (Half rate coding mode) is be changed to said second coding mode (Full rate coding mode) so that the MS1 then would select the Full rate coding mode; and during the signaling of

"Channel Set (full rate)" in communication between MS2 and MSC2, the MSC2 would send a signaling signal to the MS2 to inform the MS2 that the full-rate coding mode would be the common coding mode for the tandem free mode when said first code mode (Half rate coding mode) is changed to said second coding mode (Full rate coding mode) so that the MS2 then would select the Full rate coding mode, as also taught by Yasuda, in order to avoid a coding mismatch occurred during the tandem free operation mode.

-Regarding to claims 3, 13, as applied to claim 2, in Yasuda, if said signaled coding modes match, said coding modes (full-rate coding modes at MS1 and MS2) constitute said common coding mode for said tandem free operation mode.

-Regarding to claims 4, 14, as applied to claims 2 or 12, Yasuda teach that if said signaled coding modes do not match, the MSC (MSC1, MSC2), during the signaling "Channel Set (Full rate) (see figure 6b), is capable to select a common coding mode for said tandem free operation mode based on lists of supported coding modes which can be derived from a list provided from the MS (MS1, MS2) (see (SETUP (bc1, bc2), Original Condition Report) of figure 4) being

Art Unit: 2682

obtained from during a negotiation, for each of said mobiles, wherein at said lists of supported coding modes inherently should not include any coding mode that is not compatible with said tandem free operation mode.

-Regarding to claims 5, 15, Yasuda discloses that the method/system is used for a mobile communication system (see figure 6b).

-Regarding to claims 6, 7, 16 and 17, adaptive coding modes are inherently not compatible for a tandem free operation (note that as being inherent, they are also admitted by applicant in the section "the background of the Invention " of the specification").

-Regarding to claims 8-10, 18-20, in Yasuda, one coding mode that is compatible with said tandem free operation mode can inherently be a full rate mode or a half rate mode if said mode is supported by both MS1 and MS2 (see figures 3 and 6a).

-Regarding to claim 23, Yasuda does not discloses that the system (figure 6b) does not comprise means for implementing codec mismatch resolution, using a list of supported coding modes, which does not comprise any coding mode that is not compatible with said tandem free operation mode.

However, Yasuda teach that during a negotiation for a communication set up between two remote stations (MS) and (MSC) (see figure 4), the remote station (MSC) can use a list of supported coding modes (BC1, BC2), being derived from a list (SETUP (BC1, BC2), Originating Condition Report) sent from the remote station (MS), and then can select one coding mode (BC1 or BC2) of the supported coding modes (see also pages 307 and 308).

Therefore, during initiating a negotiation for selecting a common coding mode for said tandem free operation, for an application, at the time the invention was made, it would have been obvious for a person skilled in the art, when building or carrying out Yasuda system (figure 6b), within his skills and upon his design preference or system requirement, to implement Yasuda system in such a way that the MSC1, for implementing codec mismatch resolution, can use a list of supported coding modes being derived from a list sent from the MSC2/MS2, and then can select one coding mode of the supported coding modes as the second coding mode in order to avoid the codec mismatch between the MS1 and MS2 during the tandem free coding mode. Further, since the list of supported coding modes must inherently

Art Unit: 2682

comprises coding modes compatible with said tandem free in order to be selected, it would have been obvious for the person skilled in the art, within his skills, can derive from the list sent from the MSC2/MS2 the list of supported coding modes which does not comprise any coding mode that is not compatible with said tandem free operation mode.

Response to Arguments

5. Applicant's arguments filed on 6/29/05 have been fully considered but they are not persuasive.

The applicant mainly argues that Yasuda does not teach limitations of claim 1.

The examiner respectfully disagrees, based on the following explanation. Note that the rejection is based on limitations given in the claim. See figure 6(b) and section (4. CODEC Bypassed Connection control) on page 308, Yasuda discloses a method of optimizing speech quality in a mobile system for a communication between a first mobile station (MS1) and a second mobile station (MS2) via a MSC1 station and a MSC2 station. In the method, a first mobile station (MS1) proposes a first coding mode (Half-rate coding) wherein

Art Unit: 2682

the proposal is conveyed in signal (SETUP) to MSC1, and after receiving the proposal, MSC1 selects a first coding mode (Half-rate coding) (see figure 6B, and page 309, col. 1, lines 2-3); (note that this selection by MSC1 is considered here equivalent with the limitation "selecting a first coding mode"). Next, MSC1 send a notification of the selection by conveying it in signal (IAM, (Haft rate) to the second mobile station in order to interrogate which coding is available at the second mobile station MS2, and then later receives a response (conveyed in signal (Channel Set (Full rate), Hand over Request (Full rate)) from the second mobile station MS2, the response indicating that the first coding mode is not available at the second mobile station MS2 (by informing that a second coding mode (Full rate coding) is the one available at the second mobile station). After finding out that the second coding mode is also available at the first mobile station (via signal (Channel Set (Full rate) between MS1 and MSC1) (see figure 6b)), MSC1 changes the selection of first coding mode to the second coding mode in order for establishing the communication between the first mobile station and the second mobile station using the second coding mode in a Full rate CODEC bypassed connection between the first mobile station and the

second. Note that the full rate CODEC bypassed connection here is a tandem-free connection because it does not require a CODEC between the communication of the first mobile station and the second mobile stations and therefore avoids transcoding performed by the CODEC in the connection.

Therefore, the event of using the second coding mode in the Full rate CODEC bypassed connection can be considered equivalent with the limitation "using said tandem free operation mode with said second coding mode". Furthermore, in the method of figure 6b, it is well-recognized in the art that when the first coding mode is not available at the second mobile station, a CODEC bypassed connection, or namely a tandem-free connection, cannot be established between the first mobile station and the mobile station by using the first coding mode because the CODEC bypassed connection requires that the first coding mode must be available at both the first mobile station and the second mobile station, or in another word, it can be said that in this situation, the first coding mode is not compatible with a tandem free operation. Therefore, the event of finding out, by MSC1, that the first coding mode is not available at the second mobile station and from thereto, changing, by the MSC1, to a second coding

mode, which is found available at both the first mobile station and the second mobile station, can be considered here equivalent with the limitation "if said first coding mode is not compatible with said tandem free operation mode, changing said first coding mode to a second coding mode which is compatible with said tandem free operation mode".

Based on the above rationale, it is believed that the limitations of claim 1 are still met and therefore, the rejection is still maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

Art Unit: 2682

no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number is (571)272-7857. The examiner can normally be reached on 8:00-16:30.

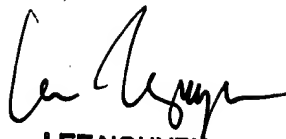
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2682

Sanh D. Phu
Examiner
Art Unit 2682

SP



LEE NGUYEN
PRIMARY EXAMINER